Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems	)	ET Docket No. 00-258
The Establishment of Policies and Service Rules for the Mobile-Satellite Service in the 2 GHz Band	)	IB Docket No. 99-81
Amendment of the U.S. Table of Frequency Allocations to Designate the 2500-2520/2670-2690 MHz Frequency Bands for the Mobile-Satellite Service	)	RM-9911
Petition for Rule Making of the Wireless Information Networks Forum Concerning the Unlicensed Personal Communications Service	)	RM-9498
Petition for Rule Making of UTStarcom, Inc., Concerning the Unlicensed Personal Communications Service	)	RM-10024

To: The Commission

PETITION FOR RECONSIDERATION OF THE SATELLITE INDUSTRY ASSOCIATION

The Satellite Industry Association ("SIA"), pursuant to Section 1.429 of the Commission's Rules, 47 C.F.R. § 1.429, hereby Petitions for Reconsideration portions of the Commission's Third Report and Order ("*Order*") in the above referenced proceeding.[1]

[1]SIA is a U.S.-based trade association representing the leading U.S. and international satellite manufacturers, service providers, and launch service companies. The SIA serves as an advocate for the commercial satellite industry on regulatory and policy issues common to its members. With its member companies providing a broad range of manufactured products and services, SIA represents the unified voice of the commercial satellite industry. SIA Executive Members include: The Boeing Company; Globalstar, L.P.; Hughes Network Systems, Inc.; ICO Global Communications; Intelsat; Lockheed Martin Corp.; Loral Space & Communications Ltd.; Mobile Satellite Ventures; Northrop Grumman Corporation; PanAmSat Corporation; SES Americom, Inc. and Associate Members include Inmarsat, and New Skies Satellites Inc.

I. INTRODUCTION

SIA objects to the Commission's unprecedented decision to eliminate nearly half of the domestic allocation for the 2 GHz Mobile-Satellite Service ("MSS") less than two years after eight licenses were first issued for this new service,[2] and less than six years after the domestic allocation was created. The Commission's decision reverses its longstanding policy of giving new communications services adequate time to grow and develop, and permitting the open market – not regulatory mandates – to determine which services will succeed.

2 GHz MSS licensees have repeatedly demonstrated that their services will need the entire 35 MHz paired spectrum allocation to support competitive service offerings and to provide services to rural and underserved areas. The scope of the bandwidth requirements remains, regardless of whether all of the licensed systems are brought into operation. Despite this fact, the Commission has assigned each 2 GHz MSS licensee only 3.5 MHz of paired spectrum and has eliminated its process for securing expansion spectrum.

Despite SIA's continued opposition to the Commission's reallocation of 2 GHz MSS spectrum, SIA is requesting formal reconsideration of the Commission's arbitrary decision to reallocate globally allocated satellite spectrum, while leaving in place non-globally allocated spectrum. Specifically, in reallocating 30 MHz of 2 GHz MSS spectrum, the Commission eliminated 10 MHz of globally allocated uplink spectrum at 1990-2000 MHz, while leaving in place 10 MHz of non-globally allocated uplink spectrum at 2010-2020 MHz. No legitimate justification has been made for disrupting the harmonized global allocation for 2 GHz MSS. Furthermore, the Commission's decision conflicts with longstanding public policy and the

[2] SIA members Boeing, Globalstar and ICO Global were awarded 2 GHz MSS licenses in July 2001.

Commission's practical experience in developing cost-effective and efficient communications services. Therefore, the Commission should, at a minimum, reconsider its decision to disrupt the global allocation for 2 GHz MSS, instead of reallocating non-globally allocated MSS spectrum.

II. THE COMMISSION HAS A LONGSTANDING POLICY OF SUPPORTING INTERNATIONAL SPECTRUM ALLOCATIONS BECAUSE OF THEIR SUBSTANTIAL PUBLIC INTEREST BENEFITS

The Commission has a clear policy of actively supporting the development, preservation and use of harmonized international and multinational spectrum allocations. As Chairman Michael Powell acknowledged in his separate statement, "[g]lobally harmonized spectrum is a vital resource and we remain committed to the ITU process and the goals of global harmonization."[3]

The Commission has "long recognized the desirability of internationally compatible band plans and frequency assignments, particularly for international systems."[4] For example, the significant advantages of harmonized spectrum was recently affirmed by the Commission's Spectrum Policy Task Force ("Task Force"), which concluded:

> because regional and world wide harmonization of band use can have significant advantages both in terms of truly ubiquitous services and economies of scale, in developing domestic spectrum policies and allocations, the Commission should consider the potential impact on international objectives, among other objectives.[5]

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[3] *Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems, et. al*, Third Report and Order, Third Notice of Proposed Rulemaking and Second Memorandum Opinion and Order, FCC 02-47 (Feb. 10, 2003) ("*Order*"), Separate Statement of Chairman Michael K. Powell at 2 ("*Powell Statement*").

[4] *Establishment of Policies and Service Rules for the Mobile Satellite Service in the 2 GHz Band*, Notice of Proposed Rulemaking, FCC 99-50, ¶ 109 (March 25, 1999) ("*2 GHz MSS Allocation NPRM*" or "*Third Notice*").

[5] *Spectrum Policy Task Force Report*, ET Docket No. 02-135, at 42 (Nov. 2002).

The benefits of global harmonization are not limited to such communication services as satellite, maritime, aeronautical, public safety and radioastronomy. Global spectrum harmonization potentially benefits all communication services by reducing equipment costs, encouraging innovation and creating new market opportunities for U.S. manufacturers.

For example, when the Commission allocated spectrum for unlicensed Part 15 devices in the 57-59 GHz band, it highlighted the fact that the spectrum was already allocated for this purpose in Europe.[6] The Commission observed that its decision "fulfills the goal of global harmonization of spectrum usage by enabling innovations that can be used both here and abroad, lessening the overall developmental costs of new and innovative technologies."[7]

In the Commission's Report to Congress on promoting broadband deployment, the Commission listed as one of its goals working for efficient international harmonization of spectrum allocations.[8] Furthermore, when the Commission created its spectrum allocation and assignment plan for Ka-band satellite services, it adopted a policy of pursuing international adoption of its band plan, observing that "substantial delay can result if licensees do not conform their international plans, and instead pursue differing and irreconcilable assignments on a country-by-country basis."[9]

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[6] *See Amendment of Part 2 of the Commission's Rules to Allocate Additional Spectrum to the Inter-Satellite, Fixed, and Mobile Services and to Permit Unlicensed Devices to Use Certain Segments in the 50.2-50.4 GHz and 51.4-71.0 GHz Bands*, Report and Order, FCC 00-442, ¶ 36 (Dec. 22, 2000).

[7] *Id.*

[8] *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*, Report to Congress, FCC 99-5, ¶ 107 (Feb. 2, 1999).

[9] *2 GHz MSS Allocation NPRM*, ¶ 109 (*citing Ka-band Third Report & Order*, FCC 97-378, ¶¶ 67-68 (Oct. 15, 1997) ("*Ka-band Third Order*").

The benefits of the Commission's policy of supporting harmonized global spectrum allocations have been repeatedly tested and proven through experience. For example, as the Commission has acknowledged, when the Big LEO MSS service was created, the failure to require licensees to operate in accordance with the domestic band plan outside the United States resulted in significant delay in the implementation of their systems."[10]

Recognizing this experience, when the Commission created the 2 GHz MSS service, it stated that its domestic allocation should be as consistent as possible with international allocations in order to "help ensure truly universal service" and to permit "the United States to participate in global MSS systems and realize the benefits to consumers of such systems."[11]

Despite this wealth of experience, the Commission appears to have abandoned its long standing support for global spectrum allocations, eliminating nearly half of the global uplink allocation for 2 GHz MSS, while leaving in place non-globally allocated spectrum. Satellites networks are inherently global in nature, but MSS in even more so due to their dependence on low-cost and convenient multinational roaming of user terminals. The Commission's decision therefore imposes a significant barrier on the ability of MSS networks to offer a competitive service. As Commissioner Michael Copps observed, this action

> will raise costs of satellite design and construction, make trans-national interference coordination more difficult, especially where satellite and terrestrial licensees must coordinate, and may further erode U.S. credibility internationally when we next fight for harmonized spectrum.[12]

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[10] *Ka-band Third Order*, ¶ 68 (*citing Amendment of the Commission's Rules to Establish Rules and Policies Pertaining to a Mobile Satellite Service in the 1610-1626/2483.5-2500 MHz Frequency Bands*, Report and Order, 9 FCC Rcd 5936, ¶ 231 (1994)).

[11] *Amendment of Section 2.106 of the Commission's Rules to Allocate Spectrum at 2 GHz for Use by the Mobile-Satellite Service*, First Report and Order and Further Notice of Proposed Rule Making, FCC 97-93, ¶ 14 (March 13, 1997).

[12] *Order*, Separate Statement of Commissioner Michael J. Copps at 1 ("*Copps Statement*").

The Commission fails to explain clearly its apparent justification for this reversal in policy, increasing the likelihood of misunderstandings within international bodies such as the International Telecommunication Union. The Commission states initially that it chose to reallocate globally allocated spectrum in order to create a new PCS allocation that is contiguous with the existing allocation and thus "allow new entrants to take advantage of economies of scale in developing and deploying new services."[13] Subsequently, the Commission attempted to justify its decision based on claims about potential interference to PCS operations in the 1930-1990 MHz band.[14] As explained in the next section, neither purported reason justifies the abandonment of the Commission's support for globally harmonized spectrum, which the Commission continues to acknowledge is "an important resource."[15]

III. NO LEGITIMATE BASIS EXISTS FOR THE COMMISSION'S DECISION TO REALLOCATE GLOBALLY ALLOCATED 2 GHz MSS SPECTRUM

In order for the Commission to disregard its long-standing policy of support for globally harmonized spectrum, the Commission must conclude that conflicting concerns or benefits outweigh the substantial and demonstrated benefits that would result from adherence to the Commission's harmonized spectrum policy. As discussed in the following sections, neither of the Commission's purported justifications meets the requirements of this test. As a result, the Commission must reverse its decision because it is in conflict with its statutory requirement to manage spectrum resources in ways that promote the public interest.

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[13] *Id.*, ¶ 34.

[14] *See id.*, ¶ 35.

[15] *Id.*

A. Expanding the Contiguous PCS Allocation at 1930-1990 Would Not Benefit New Entrants in the PCS Industry

The Commission initially claims in its *Order* that it reallocated globally allocated 2 GHz MSS spectrum in order to create a PCS allocation that is contiguous with the existing PCS allocation, thus creating economies for potential new entrants.[16] The Commission suggests that new entrants could deploy PCS networks in the 1990-2000 MHz band using existing PCS equipment with little modification.[17]

The Commission fails to explain, however, why these identical economies could not be enjoyed using the 2010-2020 MHz band for PCS. With just 10 MHz of separation between the two bands, no evidence exists that existing PCS equipment could not be modified to use the upper spectrum segment. As a result, the Commission's initial justification for reallocating globally allocated MSS spectrum lacks a reasonable basis.

Furthermore, the Commission's claim of economies for PCS operators presupposes that the 1990-2000 MHz band will be used for PCS expansion. The Commission is reportedly considering several other possible uses for some or all of the spectrum, such as advanced wireless services ("AWS"), low-powered unlicensed devices, point-to-point licensed services, replacement spectrum for Nextel, or MDS Channels 1 and 2/2A.[18] None of these services would benefit from an adjacent allocation to the heavily used PCS band. In contrast, many of these services might benefit

[16] *See id.*, ¶ 34.

[17] *See id.*

[18] *Id.*, ¶¶ 45, 53, see also *Copps Statement*; Separate Statement of Jonathan S. Adelstein at 1.

significantly from an allocation contiguous to the 2020-2025 MHz band, which the Commission is considering for new fixed and mobiles services, such as AWS.[19]

In any event, the Commission's initial justification for its reallocation decision – economies for new PCS entrants – is clearly inadequate to overcome the substantial public interest benefits that would be achieved through retention of a global spectrum allocation. Accordingly, the Commission should reconsider its decision to reallocate the 1990-2000 MHz band instead of the non-globally allocated 2010-2020 MHz band.

B. Eliminating the 2 GHz MSS Allocation in the 1990-2000 MHz Band is Unnecessary to Prevent Potential Interference to PCS

The Commission's second stated justification for reallocating globally allocated 2 GHz MSS spectrum is "concerns regarding potential interference to existing PCS operations at 1930-1990 MHz."[20] The Commission does not suggest in its *Order* that these concerns have been documented – much less proven – through technical analysis or testing.[21] Instead, as Commissioner Copps observed, "claims of potential interference were raised extremely late in this proceeding and the effect on interference of our decision is poorly understood, at best."[22]

The Commission also appears to have disregarded entirely technical analysis by one participant in this proceeding – a wireless network operator – that demonstrated that (1) interference to PCS from MSS Ancillary Terrestrial Service ("ATC") was unlikely to result, (2) the

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[19] *See id.* ¶ 68 (observing that contiguous spectrum for AWS "will create synergies in equipment design and facilitate the introduction of multiple AWS licensees using large spectrum blocks").

[20] *Id.*, ¶ 35.

[21] *See*, *e.g.*, *AT&T Wireless Services, Inc. v. FCC*, 270 F.3d 959, 968 (D.C. Cir. 2001) (reversing FCC decision for failure to explain adequately rejection of interference analysis).

[22] *Order,* at *Copps Statement.*

potential for interference could be prevented through routine coordination, and (3) if such interference did result, it was far more likely to occur between adjacent PCS networks, than between MSS and PCS networks.[23] This final point is particularly relevant. Because of the current heavy use of the 1930-1990 MHz band by PCS licensees, any potential interference that could result should have already been detected between adjacent PCS networks.

Even if OOB interference was a valid concern, however, the issue was addressed fully by the Commission through its decision to adopt stringent OOB limits on MSS ATC operations.[24] Importantly, the OOB limits that were adopted restrict the emissions of MSS ATC networks into the PCS band regardless of the precise 2 GHz MSS spectrum segment used by the MSS ATC network.[25] As a result, the OOB limits adopted by the Commission provide PCS operators with the same level of protection regardless of whether 2 GHz MSS networks are operating in the 1990-2000 MHz band, or in the 2010-2020 MHz band. The Commission is also requiring MSS ATC operators to resolve any complaints of interference raised by PCS operators.[26] These combined requirements protect fully PCS operations and, as a result, the reallocation of globally allocated spectrum was entirely unnecessary.

Furthermore, the Commission's decision to reallocate the 1990-2000 MHz band did nothing to eliminate the adjacency between PCS and MSS, it simply moved the adjacency by 10

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[23] *See Letter from Regina M. Keeney, Counsel, Nextel Communications, Inc., to Marlene H. Dortch, Secretary, Federal Communications Commission*, at 4-7 (Jan. 23, 2003) (providing on an *ex parte* basis a Nextel technical evaluation and research presentation).

[24] *See Flexibility for Delivery of Communications by Mobile Satellite Service Providers in the 2 GHz Band, the L-Band, and the 1.6/2.4 GHz Bands; Review of the Spectrum Sharing Plan Among Non-Geostationary Satellite Orbit Mobile Satellite Service Systems in the 1.6/2.4 GHz Bands*, Report and Order and Notice of Proposed Rulemaking, FCC 03-15 (Feb. 10, 2003).

[25] *See id.*, ¶ 119.

[26] *See id.*

MHz. The Commission suggests that this adjustment will give new entrants in the PCS industry an opportunity to build more robust networks in anticipation of adjacent MSS operations.[27] The fact is, however, that PCS licensees have always been on notice that their networks must be designed to withstand adjacent MSS operations, including MSS operations in urban areas.

As a result, the undocumented and speculative suggestions of potential interference to PCS are inadequate to overcome the substantial public interest benefits that would result from retention of globally allocated 2 GHz MSS spectrum. The Commission should therefore reconsider its decision in light of its statutory obligation to serve and promote the public interest.

IV. CONCLUSION

The reasons stated herein, the SIA urges the Commission to reconsider its decision to reallocate globally allocated satellite spectrum instead of non-globally allocated satellite spectrum.

Respectfully submitted,

SATELLITE INDUSTRY ASSOCIATION

By: 

Richard DalBello
Executive Director
225 Reinekers Lane
Suite 600
Alexandria, VA 22314

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[27] *See Order*, ¶ 51.